

## **AMENDMENT(S) TO THE SPECIFICATION**

**Please replace the paragraph beginning at page 1, line 13, with the following rewritten paragraph:**

A typical water treatment process is a two-stage process. ~~First~~ The first stage is the drawing of water from the natural/artificial sources such as wells, rivers and even the sea. Water is drawn from these sources using various types of devices. Specifically, for well water, well pumps are used to draw water from the well to the ground level. Water drawn from the well is often saline in nature. Hence, the second stage of water treatment is the process to remove contaminants and dissolved salts from the water obtained in the first stage.

**Please replace the paragraph beginning at page 4, line 15, with the following rewritten paragraph:**

Furthermore, the known pumps generally comprise moving parts and in consequence ~~infer a risque~~ run a risk of contamination either by lost lubricants or by wear of the moving parts. Like all machines having moving parts, they need some kind of maintenance and have a limited lifetime.

**Please replace the paragraph beginning at page 5, line 11, with the following rewritten paragraph:**

At least the first of these objectives are achieved by using a water treatment system comprising a desalination unit and a well pumping unit such that the brine produced as a by-product of decontamination is used as feed to run the well pump arrangement. ~~according to claim 1. Preferred embodiments and methods for purification of well water are defined in the following claims.~~

**Please replace the paragraph beginning at page 7, line 20, with the following rewritten paragraph:**

Well pump arrangement 102 is used to draw water from the well to the surface. Well pump arrangement 102 comprises a well pump to draw water from the well and an exit line 108 to carry the water drawn from the well. Typical well pumping devices include a jet pump, a centrifugal pump, a submersible pump and a double-cone device. In a preferred embodiment, a double-cone well pump arrangement a so-called DC well pump pressure amplifier (DC-

WPPA)(as described in PCT patent application WO-A-02/075 109) is used for drawing water from the well. It should be apparent to one skilled in the art that any well pump arrangement can be used for drawing water from the well. The water drawn from the well is saline in nature. The saline well water is passed through desalination unit 104.

**Please replace the paragraph beginning at page 8, line 5, with the following rewritten paragraph:**

As a A double-cone device (DC) shall be understood as a double-cone device as defined in the preceding patent applications of the applicant, specifically PCT application WO-A-02/075 109, which is hereby incorporated by reference.

**Please delete the paragraph at page 9, lines 25-28, in its entirety.**

**Please replace the paragraph beginning at page 9, line 29, with the following rewritten paragraph:**

Further, a bleed 127 is added to brine line 106 so as to check and adjust the brine concentration. Also, a pressure reduction valve 126 is added to reduce the brine pressure to a level prescribed by bleed 127. ~~The bleed 127 is added to brine line 106 so as to check and adjust the brine solution concentration:~~ As the brine concentration rises, it is necessary to open the valve 126 and vice versa. Thus, the inclusion of this bleed 127 allows the monitoring of the brine ~~salt~~ solution concentration and subsequent adjustment of the valve 126.

**Please add the following new paragraph at page 10, after line 21:**

In an alternative embodiment, a pressure regulating valve 124 can also be added to intermediate reservoir 110 for permitting a pressurised feed to pump 122 thereby reducing the power requirement of pump 122.

**Please replace the paragraph beginning at page 11, line 3, with the following rewritten paragraph:**

The reason for DC PA2 125 is to enable the whole system to run for long periods continuously without a too rapid build-up of salt ~~concentration~~ concentration. Once the system salt concentration exceeds the viable operating limit, the shutdown valve 128 is closed and the

system salt solution drains back into the well through the inlet ports of the DC WPPA 102. It is not necessary to shut down pump 118, but advisable to stop the (optional) pumps 120, 122. The denser system salt solution sinks to the bottom of the well 103 and will percolate downwards out of the well 103 if the well 103 is constructed correctly. Normally the incoming well water ~~occurs~~ flows in through porous well liner sections some distance above the sump (bottom) of the well 103.

**Please replace the paragraph beginning at page 12, line 4, with the following rewritten paragraph:**

As a function of the system ~~components~~ component requirements, specifically ~~the high pressure pump 130 and~~ the RO unit 114, a fine filter 136, a rupture safety device 138 and/or a pulsation ~~demper~~ damper 140 are arranged around the high pressure pump ~~[[139]] 130~~. These devices are known per se and need not be described in detail. The fine filter 136 is placed upstream of the high pressure pump 130, the other two devices 138, 140 downstream.

**Please replace the paragraph beginning at page 12, line 22, with the following rewritten paragraph:**

In general, instead of or additionally to a pressure reducing valve 126, a pressure energy recuperation system, e.g. like those mentioned in the introduction, may be used. The pressurising part of such a system is arranged before or after the end pressurising unit (DC-PA ~~[[112]] 142~~) in order to reduce the pressure difference the latter has to create.

**Please replace the paragraph beginning at page 13, line 2, with the following rewritten paragraph:**

Separation unit 204 is a module separated into two volumes 204A and 204B by a semi-permeable membrane. Volume 204A beyond the membrane contains water with a low salt concentration while volume 204B contains brine. The brine is used as the feed for well pumping arrangement 102. Low salt concentration water is forced into separation unit 114 by pumping arrangement 112. Separation unit 114 produces desalinated water as well as high-pressure brine. The high-pressure brine is sent to volume 204B where the residual pressure is used to drive a dilute salt solution out of the brine across the membrane into the incoming well water in volume

204A. The result of this operation is that the brine concentration is increased substantially and the incoming well water has its salt concentration reduced.

**Please delete the paragraph at page 15, lines 7-12, in its entirety.**